SEQUENCE LISTING

<110> CHUGAI SEIYAKU KABUSHIKI KAISHA

<120> Expression systems using mammalian β-Actin promoter

<130> C1-A0311P

<150> JP 2003-405269
<151> 2003-12-03

<160> 39

<170> Patentin version 3.1

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<212> DNA
<213> Mus musculus

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acatccacac ccagagggtc ctggggtggt tgggtgaccc ccagaatgca ggcctagtaa 180

ccgagacatt gaatggggca gtgtccacaa gggcggaggc tattcctgta catctgggcc 240

tacggagcca gcacccatcg ccaaaactct tcatcctctt cctcaatctc gctttctctc 300

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ggtaaaaaaa tgctgcactg tgcggcgagg ccggtgagtg agcgacgcgg agccaatcag 420

cgcccgccgt tccgaaagtt gcctttatg gctcgagtgg ccgctgtggc gtcctataaa 480

acccggcggc gcaacgcgca gccactgtcg agtcgcgtcc acccgcgagc acagcttctt 540

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cgggccttcg ctctctcgtg gctagtacct cactgcaggg tcctgaggat cactcagaac 660

ggacaccatg ggcgggtgga gggtggtgcc gggccgcgga gcggacactg gcacagccaa 720

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cccgctcccg ctcggtgcgt ggggcttggg gacacactag ggtcgcggtg tgggcatttg 840

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gtattgggaa ccagacgcta cgatcacgcc tcaatggcct ctgggtcttt gtccaaaccg 960

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<211> 1542
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<213> Mus musculus

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acatccacac ccagagggtc ctggggtggt tgggtgaccc ccagaatgca ggcctagtaa 180

ccgagacatt gaatggggca gtgtccacaa gggcggaggc tattcctgta catctgggcc 240

tacggagcca gcacccatcg ccaaaactct tcatcctctt cctcaatctc gctttctctc 300

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cggctcgagc ccgcggcttg ccggaagtgg gcagggcggc agcggctgct cttggcggcc 1500

ccgaggtgac tatagccttc ttttgtgtct tgatagttcg cc 1542

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<211> 604
<212> DNA
<213> Woodchuck hepatitis virus

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tcccgtatgg ctttcatttt ctcctccttg tataaatcct ggttgctgtc tctttatgag 180

gagttgtggc ccgttgtcag gcaacgtggc gtggtgtgca ctgtgtttgc tgacgcaacc 240

cccactggtt ggggcattgc caccacctgt cagctccttt ccgggacttt cgctttcccc 300

ctccctattg ccacggcgga actcatcgcc gcctgccttg cccgctgctg gacaggggct 360

cggctgttgg gcactgacaa ttccgtggtg ttgtcgggga agctgacgtc ctttccatgg 420

ctgctcgcct gtgttgccac ctggattctg cgcgggacgt ccttctgcta cgtcccttcg 480

gccctcaatc cagcggacct tccttcccgc ggcctgctgc cggctctgcg gcctcttccg 540

cgtcttcgcc ttcgccctca gacgagtcgg atctcccttt gggccgcctc cccgcctgtc 600

taga 604

<210> 4
<211> 366
<212> DNA
<213> Homo sapiens

<400> 4
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cgttacataa cttacggtaa atggcccgcc tggctgaccg cccaacgacc cccgcccatt 120

gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc attgacgtca 180

atgggtggag tatttacggt aaactgccca cttggcagta catcaagtgt atcatatgcc 240

aagtacgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt atgcccagta 300

catgacctta tgggactttc ctacttggca gtacatctac gtattagtca tcgctattac 360

catggt 366

<210> 5
<211> 660
<212> DNA
<213> Mus musculus

<400> 5
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tggaggcgtg ggaaagagtg ccctgaccat ccagctgatc cagaaccact ttgtggacga 120

gtatgatccc actatagagg actcctaccg gaaacaggtg gtcattgatg gggagacatg 180

tctactggac atcttagaca cagcaggtca agaagagtat agtgccatgc gggaccagta 240

catgcgcaca ggggagggct tcctctgtgt atttgccatc aacaacacca agtccttcga 300

ggacatccat cagtacaggg agcagatcaa gcgggtgaaa gattcagatg atgtgccaat 360

ggtgctggtg ggcaacaagt gtgacctggc tgctcgcact gttgagtctc ggcaggccca 420

ggaccttgct cgcagctatg gcatccccta cattgaaaca tcagccaaga cccggcaggg 480

cgtggaggat gccttctata cactagtccg tgagattcgg cagcataaat tgcggaaact 540

gaacccaccc gatgagagtg gtcctggctg catgagctgc aaatgtgtgc tgtcctgaca 600

ccaggtgagg cagggaccag cgagacgtct ggggcagtga cctcagctag ccagatgaac 660

<210> 6
<211> 576

<212> DNA
<213> Mus musculus

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tcctaccgga aacaggtggt cattgatggg gagacatgtc tactggacat cttagacaca 180

gcaggtcaag aagagtatag tgccatgcgg gaccagtaca tgcgcacagg ggagggcttc 240

ctctgtgtat ttgccatcaa caacaccaag tccttcgagg acatccatca gtacagggag 300

cagatcaagc gggtgaaaga ttcagatgat gtgccaatgg tgctggtggg caacaagtgt 360

gacctggctg ctcgcactgt tgagtctcgg caggcccagg accttgctcg cagctatggc 420

atcccctaca ttgaaacatc agccaagacc cggcagggcg tggaggatgc cttctataca 480

ctagtccgtg agattcggca gcataaattg cggaaactga acccacccga tgagagtggt 540

cctggctgca tgagctgcaa atgtgtgctg tcctga 576

<210> 7
<211> 189
<212> PRT
<213> Mus musculus

<400> 7
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Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
20 25 30

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Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
        35                  40                  45

Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
    50                  55                  60

Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
65                  70                  75                  80

Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His Gln Tyr
                85                  90                  95

Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Asp Asp Val Pro Met Val
            100                 105                 110

Leu Val Gly Asn Lys Cys Asp Leu Ala Ala Arg Thr Val Glu Ser Arg
        115                 120                 125

Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Tyr Ile Glu Thr
    130                 135                 140

Ser Ala Lys Thr Arg Gln Gly Val Glu Asp Ala Phe Tyr Thr Leu Val
145                 150                 155                 160

Arg Glu Ile Arg Gln His Lys Leu Arg Lys Leu Asn Pro Pro Asp Glu
                165                 170                 175

Ser Gly Pro Gly Cys Met Ser Cys Lys Cys Val Leu Ser
            180                 185
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<210> 8
<211> 188
<212> PRT
<213> Homo sapiens

<400> 8

Met Thr Glu Tyr Lys Leu Val Val Val Gly Ala Val Gly Val Gly Lys
1 5 10 15

Ser Ala Leu Thr Ile Gln Leu Ile Gln Asn His Phe Val Asp Glu Tyr
20 25 30

Asp Pro Thr Ile Glu Asp Ser Tyr Arg Lys Gln Val Val Ile Asp Gly
35 40 45

Glu Thr Cys Leu Leu Asp Ile Leu Asp Thr Ala Gly Gln Glu Glu Tyr
50 55 60

Ser Ala Met Arg Asp Gln Tyr Met Arg Thr Gly Glu Gly Phe Leu Cys
65 70 75 80

Val Phe Ala Ile Asn Asn Thr Lys Ser Phe Glu Asp Ile His His Tyr
85 90 95

Arg Glu Gln Ile Lys Arg Val Lys Asp Ser Glu Asp Val Pro Met Val
100 105 110

Leu Val Gly Asn Lys Cys Asp Leu Pro Ser Arg Thr Val Asp Thr Lys
115 120 125

Gln Ala Gln Asp Leu Ala Arg Ser Tyr Gly Ile Pro Phe Ile Glu Thr
130 135 140

Ser Ala Lys Thr Arg Gln Gly Val Asp Asp Ala Phe Tyr Thr Leu Val
145 150 155 160

Arg Glu Ile Arg Lys His Lys Glu Lys Met Ser Lys Asp Gly Lys Lys
165 170 175

Lys Lys Lys Lys Ser Lys Thr Lys Cys Val Ile Met

180 185

<210> 9
<211> 27
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
mer Sequence

<400> 9
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<210> 10
<211> 27
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
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<400> 10
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<210> 11
<211> 26
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri

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<400> 11
agatctggga gtgactctct gtccat 26

<210> 12
<211> 26
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
mer Sequence

<400> 12
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<210> 13
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
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<400> 13
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<210> 14
<211> 50
<212> DNA
<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 14

gcgtatccac atagcgtaaa aggagcaaca tagttaagaa taccagtcaa 50

<210> 15

<211> 50

<212> DNA

<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 15

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<210> 16

<211> 50

<212> DNA

<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

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<210> 17

<211> 50
<212> DNA
<213> Artificial

<220>
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<210> 18
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
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<210> 19
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
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<400> 19
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<210> 20
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 20
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<210> 21
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 21
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<210> 22
<211> 50
<212> DNA
<213> Artificial

<220>
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<400> 22
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<210> 23
<211> 50
<212> DNA
<213> Artificial

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<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 23
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<210> 24
<211> 50
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 24
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<210> 25
<211> 50
<212> DNA
<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 25

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<210> 26

<211> 50

<212> DNA

<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 26

gagggccgaa gggacgtagc agaaggacgt cccgcgcaga atccaggtgg 50

<210> 27

<211> 50

<212> DNA

<213> Artificial

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<400> 27

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<210> 28

<211> 57

<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 28
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<210> 29
<211> 56
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 29
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<210> 30
<211> 30
<212> DNA
<213> Artificial

<220>
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<400> 30
tctagaaatc aacctctgga ttacaaaatt 30

<210> 31
<211> 26
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 31
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<210> 32
<211> 25
<212> DNA
<213> Artificial

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<400> 32
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<210> 33
<211> 22
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 33
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<210> 34
<211> 27
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Pri
mer Sequence

<400> 34
tcctggattg gcagccgctg tagaagc 27

<210> 35
<211> 27
<212> DNA
<213> Artificial

<220>
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<400> 35
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<210> 36
<211> 24
<212> DNA
<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 36
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<210> 37
<211> 20
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 37
tcaggacagc acacatttgc 20

<210> 38
<211> 27
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence : Artificially Synthesized Primer Sequence

<400> 38
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<210> 39
<211> 27
<212> DNA

<213> Artificial

<220>

<223> Description of Artificial Sequence : Artificially Synthesized Pri
mer Sequence

<400> 39

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